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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/478,136	01/05/2000	DAVID WILLIAM HOUSE	1420-2	1290

7590

10/29/2002

MARGER JOHNSON & MCCOLLOM P C  
1030 S W MORRISON STREET  
PORTLAND, OR 97205

EXAMINER

HARVEY, DIONNE

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 10/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/478,136

Applicant(s)

House

Examiner  
Dionne Harvey

Art Unit  
2643



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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### **DETAILED ACTION**

In view of the Appeal filed on 6/12/02, PROSECUTION IS HEREBY REOPENED. A new Non-Final Rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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1. Claims 1,4,7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ball (US 6,217,508).

Regarding claims 1 and 4, Ball teaches a method for stimulating the human cochlea in response to sound, comprising: generating an electrical sound signal in response to the sound (column 8, lines 48-60); generating an analog carrier signal having a frequency greater than 20kHz (column 2, lines 58-61); generating a modulated signal of the sound signal (element-46 in figure 3); applying the signal to an electrode(100) that is coupled to the cochlea such that the signal is applied to the cochlea (column 2, lines 14-26 and column 4, lines 24-29).

Regarding claims 7 and 10, Ball teaches a cochlear implant system (see 'Abstract') comprising: at least one electrode(100), an internal coil (112; also see coils of other embodiments); a microphone (42); an oscillator(44) for generating a carrier signal having a frequency greater than 20kHz; a modulator (46); and an external coil (column 8, lines 47-48) for coupling the modulated signal to the internal coil such that the signal is applied to the cochlea.

### ***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2,3,5,6,8,9,11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ball (US 6,217,508).

Regarding claims 2,3,5,6,8,9,11 and 12, The Examiner takes the Official Notice that amplitude-modulation, frequency-modulation and phase-modulation are all well known in the art and would have been obvious for the purpose of transmitting the received ambient sound to the direct-drive cochlear electrode (100).

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's Admitted Prior Art (APA) in view of Ball (US 6,217,508).

Regarding claims 1,4,7 and 10, as shown in figure 2, the APA teaches an apparatus and method for stimulating the human cochlea in response to a sound. The apparatus comprising; an electrode(36); internal coil(40); microphone(62); oscillator(57); modulator(60); and external coil(56). The method comprising: generating an electrical sound signal in response to sound(62); generating an analog carrier signal; modulating(60) the carrier signal to generate a modulated signal; and applying the carrier signal and modulated signal to an electrode(see figure 1) that is coupled with the cochlea such that the signal is applied to the cochlea. The APA fails to specifically teach that the carrier signal has a frequency greater than 20kHz.

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Shown in Figure 1, Ball teaches a cochlear implant with a carrier signal having a frequency greater than 20kHz (column 2, lines 58-61). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the APA and Ball for the purpose of transmitting a wider range of frequencies directly to the cochlea of the user, also resulting in clearer speech perception (Please see LENHARDT-US 5,047,994 which BALL has incorporated by reference).

Regarding claims 2,5,8 and 11, the APA teach modulating by amplitude modulation.

Regarding claims 3,6,9 and 12, The Examiner takes the Official Notice that amplitude-modulation, frequency-modulation and phase-modulation are all well known In the art, and would have been obvious for the purpose of transmitting the received ambient sound to the direct-drive cochlear electrode (100).

### *Conclusion*

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111. The examiner can normally be reached on Monday through Friday from 8:30am to 6:00pm.

**Any responses to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

(703) 308-6306, for formal communications for entry

**Or:**

(703) 308-6296, for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor(Receptionist)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (703) 305-4708.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111.

D.H.

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October 21, 2002

  
HUYEN LE  
PRIMARY EXAMINER